

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/688,837	SEGAWA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Callie E. Shosho	1714	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment and 1.132 declaration filed 7/31/06.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☒ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

**Statement of Reasons for Allowance**

1. The present claims are allowable over the “closest” prior art EP 1203797 for the following reasons:

EP 1203797 discloses ink jet ink comprising water, pigment, and diene-based sulfonyl group-containing copolymer that is obtained from monomers including styrene and C<sub>4</sub>-C<sub>10</sub> diene.

However, while EP 1203797 discloses that the sulfonyl-group containing copolymer is obtained from at least 5% diene monomer, there is no criticality disclosed with the amount of styrene utilized or the type of diene monomer utilized. Further, while EP 1203797 does explicitly disclose the use of copolymers such as, for instance, styrene/isoprene/styrene, there is no explicit disclosure regarding the amount of styrene these copolymers possess.

In order to meet the requirements of the present claims in the rejections of record, examiner pointed to paragraph 95 of EP 1203797 that discloses ink comprising sulfonated copolymer obtained from 40% styrene and butadiene and argued that given the disclosure in EP 1203797 of the equivalence and interchangeability of using C<sub>4</sub> diene with using C<sub>5</sub>-C<sub>10</sub> diene, it therefore would have been obvious to one of ordinary skill in the art to use any diene including C<sub>5</sub>-C<sub>10</sub> diene in the copolymer with 40% styrene, and thereby arrive at the claimed invention.

However, the comparative data set forth in the present specification (see Table 2) in combination with the 1.132 declaration filed 7/31/06 overcomes the rejections of record utilizing EP 1203797 for the following reasons.

The data compares ink within the scope of the present claims, i.e. comprising sulfonated isoprene/styrene/isoprene copolymer wherein styrene is present in an amount of 40% (example 1), with ink outside the scope of the present claims but within the scope of EP 1203797, i.e.

comprising sulfonated butadiene/styrene/butadiene copolymer wherein styrene is present in an amount of 40% (comparative example 3). It is shown that the ink of the present invention is superior in terms of gas resistance, abrasion resistance, and scratch resistance. Thus, the declaration establishes that the use of butadiene is not equivalent and interchangeable with the use of isoprene.

Further, the data compares ink within the scope of the present invention, i.e. comprising sulfonated isoprene/styrene/isoprene wherein styrene is present in an amount of 40% or 60% (example 1 or example 2), with ink outside the scope of the present claims but within the scope of EP 1203797, i.e. comprising sulfonated isoprene/styrene/isoprene copolymer wherein styrene is present in an amount of 80% (comparative example 2). It is shown that the ink of the present invention is superior in terms of light resistance, gas resistance, abrasion resistance, and scratch resistance.

Thus, the comparative data set forth in the present specification in combination with the 1.132 declaration filed 7/31/06 are successful in establishing unexpected or surprising results over EP 1203797.

In light of the above, the present claims are passed to issue.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

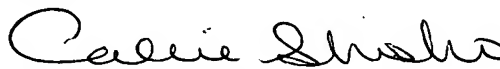
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fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 571-272-1123. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Callie E. Shosho  
Primary Examiner  
Art Unit 1714

CS  
8/11/06